REMARKS

Claims 1, 3-9, 11-17 and 19-24 are pending in the application.

Claims 1, 3-9, 11-17 and 19-24 have been rejected.

Claims 1, 3, 9, 11, 17 and 19 have been amended as set forth herein.

Claims 1-3, 11-17 and 19-24 remain pending in this application.

Reconsideration of the claims is respectfully requested. The Applicants make the arguments set forth below in order to place this Application in condition for allowance. In the alternative, the Applicants have made the amendments above and arguments below to properly frame the issues for appeal. In this Response, the Applicants make no admission concerning any now moot rejection or objection, and affirmatively deny any position, statement or averment of the Examiner that was not specifically addressed herein.

I.   CLAIM OBJECTIONS

The Office Action rejects Claims 1, 3-9, 11-17 and 19-24 because of the recitation of the variable terms "N" and "R" in these claims. The Office Action contends that the variable terms "N" and "R" are acronyms that have not been defined in the claims. To further prosecution, the Applicants have amended claims 1, 3, 9, 11, 17 and 19 as shown in the previous section. Accordingly, the Applicants respectfully request that the § 112 rejections with respect to Claims 1, 3, 9, 11, 17 and 19 be withdrawn.

II.   CLAIM REJECTION UNDER 35 U.S.C.§103

Claims 1, 3-4, 6-9, 11-12, 14-17, 19-20 and 22-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,078,963 to *Civanlar et al*, hereinafter "Civanlar" in view of US 2004/0156371 A1 to *Kumar et al*, hereinafter "Kumar" and further in view of US 2004/0111640 A1 to *Baum* hereinafter "Baum". The Applicants respectfully traverse the rejection.

Claims 5, 13 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Civanlar in view Kumar and Baum as applied to claims 1, 9 and 17 above, and further in view of US 2005/0053080 A1 to *Wybenga et al*, hereinafter "Wybenga". The Applicants respectfully traverse the rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a prima facie case of obviousness. MPEP § 2142, p. 2100-125 (8th ed. rev. 5, August 2006). Absent such a prima facie case, the Applicants are under no obligation to produce evidence of nonobviousness. *Id.* To establish a *prima facie* case of obviousness, three basic criteria must be met: *Id.* First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *Id.* Second, there must be a reasonable expectation of success. *Id.* Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The teaching or suggestion to make the claimed combination and the reasonable

expectation of success must both be found in the prior art, and not based on Applicants' disclosure. *Id.*

Independent Claim 1 recites "a switch fabric; and at least two Layer 2 modules coupled by said switch fabric." The claim recites that" each of said at least two Layer 2 modules operable to receive data packets in Layer 2 frames and forward said received data packets using Layer 2 addresses associated with said Layer 2 frames." The claim further recites "wherein a first one of said Layer 2 modules comprises a Layer 3 routing engine for forwarding a first received data packet through said switch fabric directly to a second one of said Layer 2 modules using a Layer 3 address associated with said first received data packet if said first Layer 2 module does not recognize a Layer 2 address associated with said first received data packet. The claim also recites "wherein said Layer 3 routing engine comprises a forwarding table comprising a plurality of aggregated Layer 3 addresses, wherein if the Layer 3 routing engine cannot forward the data packet, the Layer 2 engine will inspect the data packet and forward the data packet according to **Layer 2 protocols**."

Civanlar and *Kumar* and *Baum*, taken singularly or in combination, do not teach "wherein a first one of said Layer 2 modules comprises a Layer 3 routing engine for forwarding a first received data packet through said switch fabric directly to a second one of said Layer 2 modules using a Layer 3 address associated with said first received data packet if said first Layer 2 module does not recognize a Layer 2 address associated with said first received data packet" or "wherein said Layer 3 routing engine comprises a forwarding table comprising a plurality of aggregated Layer 3 addresses,

wherein <u>if the Layer 3 routing engine cannot forward the data packet, the Layer 2 engine will inspect the data packet and forward the data packet according to **Layer 2 protocols**</u>." In particular, *Baum* does not provide a disclosure that remedies the conceded deficiencies of *Civanlar* and *Kumar*. Accordingly, without conceding the propriety of the asserted combination, the asserted combination of *Civanlar*, *Kumar* and *Baum* is likewise deficient even in view of the knowledge of one of ordinary skill in the art.

The Office Action concedes that *Civanlar* and *Kumar* do not disclose "wherein a first one of the Layer 2 modules comprises a Layer 3 routing engine for forwarding a first received data packet through the switch fabric directly to a second one of the Layer 2 modules using a Layer 3 address associated with the first received data packet if the first Layer 2 module does not recognize a Layer 2 address associated with the first received data packet, wherein if the layer 3 routing engine cannot forward the data packet, the layer 2 ending will inspect the data packet and forward the data packet according to layer 2 protocols." (Office Action, page 9) Nonetheless, the Office Action rejects independent Claim 1 contending that *Baum* provides this necessary disclosure.

The Office Action cites *Baum* (Figure 6, paragraph [0094], lines 1-18) to teach "wherein a first one of said Layer 2 modules comprises a Layer 3 routing engine for forwarding a first received data packet through said switch fabric directly to a second one of said Layer 2 modules using a Layer 3 address associated with said first received data packet if said first Layer 2 module does not recognize a Layer 2 address associated with said first received data packet." (Office Action, pages

10-11). The Office Action states "when an IP packet is received and destination address is not found, the forwarding routine 622 compares in L2 to L3 resolution table 624." However, the cited portions do not teach or disclose a Layer 2 routing module comprising a Layer 3 routing engine. Further, the cited portions do not teach that the data packet is routed by the Layer 2 module to another Layer 2 module using a Layer 3 address associated with the data packet if the Layer 2 module does not recognize a Layer 2 address associated with the data packet. *Baum*, paragraph [0094] is reproduced herein below:

> [0094] When an IP packet is received which has <u>a destination address not found in the L3 forwarding table 628, the forwarding routine 622 compares the received IP destination address to the entries in the L2 to L3 resolution table 624</u>. If the IP address is listed in the table 624, the <u>MAC address 902 or 902' corresponding to the received destination IP address 904 or 904'</u>, respectively, is retrieved from the L2 to L3 address resolution table. **The MAC address is then used** in a L2 forwarding table look-up operation. Using the MAC address as an index to the L2 forwarding table, an output port to be used for forwarding the information included in the received IP packet is determined. As part of the forwarding operation, content from the received IP packet is placed into the payload of an Ethernet frame and then transmitted to the appropriate Ethernet LAN **via the port identified in the L2 forwarding table**. In this manner, IP packets received from the IP network can be transmitted to devices over the Ethernet LAN coupled to the edge router 600. (*Baum*, paragraph [0094]) (Emphasis added)

Therefore, *Baum* merely teaches, and is limited to teaching, that a packet is forwarded based on the MAC Address (which is a Layer 2 address) found in the L2 to L3 resolution table. *Baum* does not teach or suggest "said first Layer 2 module comprises a Layer 3 engine." Rather, *Baum* only

discloses that "a forwarding routine" uses a lookup table. A "forwarding routine" is not a Layer 2 module comprising a Layer 3 engine. Further, *Baum* does not teach or suggest "if said first Layer 2 module <u>does not recognize a Layer 2 address</u> associated with said first received data packet." Rather, *Baum* expressly teaches that the forwarding routine uses the lookup table in order to identify the MAC address (which is a Layer 2 address as expressly defined by *Baum*, paragraph [0093], lines 1-3). *Baum* does not teach or suggest "forwarding a first received data packet through said switch fabric directly to a second one of said Layer 2 modules <u>using a Layer 3 address associated with said first received data packet</u>." Rather, *Baum* expressly teaches that the forwarding routine uses the MAC address to identify a port to forward the packet. Therefore, *Baum* cannot reasonably be interpreted as teaching "wherein a first one of said Layer 2 modules comprises a Layer 3 routing engine for forwarding a first received data packet through said switch fabric directly to a second one of said Layer 2 modules using a Layer 3 address associated with said first received data packet if said first Layer 2 module does not recognize a Layer 2 address associated with said first received data packet" as recited by independent Claim 1.

Additionally, The Office Action cites *Baum* (Figure 6, paragraph [0094], lines 1-18) to teach wherein if the layer 3 routing engine cannot forward the data packet, the layer 2 ending will inspect the data packet and forward the data packet according to layer 2 protocols." the cited portions do not teach or disclose if the **Layer 3 routing engine cannot forward the data packet**, the Layer 2

engine will inspect the data packet and forward the data packet according to **Layer 2 protocols**.

Baum, paragraph [0098] is reproduced herein below:

> [0098] The routine 618 first determines whether an IP or MAC address has been received in a port number information request. If the request includes a MAC address, the received MAC address is used as an index into the L2 forwarding table to determine the router port corresponding to the received address. If an IP address is received as part of a port number information request, the IP address is first used as an index as part of a look-up into the L2 to L3 address resolution table 624. In this manner <u>the MAC address corresponding to the received IP address is determined</u> from the table 624. <u>Once the MAC address is determined from table 624 it is used to consult the L2 forwarding table 626. In this manner, the router port corresponding to the MAC address is determined.</u> (*Baum*, paragraph [0094]) (Emphasis added)

Therefore, *Baum* merely teaches, and is limited to teaching, that a router port is identified based on the MAC Address found in the L2 to L3 resolution table. As stated herein above, *Baum* does not teach or suggest "said first Layer 2 module comprises a Layer 3 engine." Further, *Baum* does not teach or suggest that Layer 3 engine, or any engine, <u>cannot forward the data packet</u>. Rather, *Baum* merely teaches that the forwarding routine uses a received MAC address to identify a router port or uses a lookup table to identify the MAC address (L3 address) corresponding to an IP address (L2 address). *Baum* also does not teach or suggest "the Layer 2 engine will inspect the data packet and forward the data packet <u>according to Layer 2 protocols</u>." Rather, *Baum* only teaches that the forwarding routine uses the MAC address to identify a port to forward the packet. *Baum* contains no teaching regarding Layer 2 protocols. Using an address is not the same as using protocols.

Therefore, *Baum* cannot reasonably be interpreted as teaching "wherein if the Layer 3 routing engine cannot forward the data packet, the Layer 2 engine will inspect the data packet and forward the data packet according to Layer 2 protocols" as recited by independent Claim 1.

Accordingly, the Applicants respectfully request that the § 103 rejection with respect to Claim 1 and its dependent claims be withdrawn.

Independent Claim 9 recites "a first one of said Layer 2 modules comprises a Layer 3 routing engine for forwarding a first received data packet through said switch fabric directly to a second one of said Layer 2 modules using a Layer 3 address associated with said first received data packet if said first Layer 2 module does not recognize a Layer 2 address associated with said first received data packet and wherein if the Layer 3 routing engine cannot forward the data packet, the Layer 2 engine will inspect the data packet and forward the data packet according to Layer 2 protocols," and independent Claim 17 recites, "determining if the first Layer 2 module recognizes a Layer 2 address associated with the first received data packet; and if the first Layer 2 module does not recognize the Layer 2 address associated with the first received data packet, using a Layer 3 routing engine associated with the first Layer 2 module to forward the first received data packet through the switch fabric directly to a second one of the Layer 2 modules and wherein the Layer 3 routing engine uses a Layer 3 address associated with the first received data packet to forward the first received data packet and wherein if the Layer 3 routing engine cannot forward the data packet, the Layer 2 engine will inspect the data packet and forward the data packet according to Layer 2 protocols.." Accordingly,

for the reasons discussed above in connection with Claim 1, independent Claims 9 and 17 are not made obvious by the cited art.

Accordingly, the Applicants respectfully request that the § 103 rejections with respect to Claims 9 and 17, and their dependent claims, be withdrawn.

Dependent Claim 5, which depends from independent Claim 1, dependent Claim 13, which depends from independent Claim 9, and dependent Claim 21, which depend from independent Claim 17, are also not made obvious by the cited art because they include the elements of their respective base claims and add additional elements that further distinguish the art. The addition of *Wybenga* does not cure the deficiencies of *Civanlar*, *Kumar* and *Baum*, discussed above. Accordingly, the Applicants respectfully request that the § 103 rejection with respect to Claims 5, 13 and 21 be withdrawn

The Applicants disagree with the Office Action's rejections of Claims 1, 3-9, 11-17 and 19-24 based on misdescriptions and/or misapplications of *Civanlar*, *Kumar*, *Baum* and *Wybenga* to at least some of Claims 1, 3-9, 11-17 and 19-24. However, the Applicant's arguments regarding those other shortcomings of *Civanlar*, *Kumar*, *Baum* and *Wybenga* are moot in view of the Claim 1 arguments above. However, the Applicants reserve the right to dispute in future Office Action responses the appropriateness and the applications of *Civanlar*, *Kumar*, *Baum* and *Wybenga* to the claims of the present application, including the right to dispute assertions made in the April 1, 2009 Office Action.

CONCLUSION

As a result of the foregoing, the Applicants assert that the remaining claims in the Application are in condition for allowance, and respectfully requests that this Application be passed to issue.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@munckcarter.com.*

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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